

measure for the light power emitted by the diode from solely a combination of the forward current and forward voltage of the diode, based on the assumption that at a constant light power the forward voltage is a function of the forward current.

C1 2. (Twice Amended) The method as set forth in claim 1, wherein the function that determines the forward voltage from the forward current of the diode at a constant light power is determined through measurements at various temperatures and wherein the diode is connected such that the resultant functional correlation between forward current and forward voltage is set solely through electrical means.

C3 3. (Twice Amended) The method as set forth in claim 2, wherein the forward voltage is measured via an analog/digital interface using a suitable data processing device, and wherein the forward current is controlled via a digital/analog interface such that the previously determined functional correlation is established between the set forward current and the measured forward voltage.

C3
4. (Twice Amended) The method as set forth in claim 2, wherein it is presumed that the function, from which at a constant light power the forward voltage is determined from the forward current, is linear.

C4
5. (Thrice Amended) The method as set forth in claim 4, wherein, in the case of a constant forward voltage at a constant light power and an increasing forward current, this correlation is established by directly connecting the diode to a constant voltage source.

C5
6. (Twice Amended) The method as set forth in claim 4, wherein, in the case of a linearly decreasing forward voltage at a constant light power and an increasing forward current, this correlation is established through the operation of the diode together with a resistor connected in series with a constant voltage source.

7. (Twice Amended) The method as set forth in claim 4, wherein, in the case of a linearly increasing forward voltage at a constant light power and an increasing forward current, this correlation is by directly connecting the diode to a circuit which exhibits the behavior of a constant

voltage source connected in series with a resistor of negative resistance.

8. (Twice Amended) A method for stabilizing a plurality of similar light emitting diodes or laser diodes, wherein a first diode is stabilized using the method set forth in claim 3, and wherein the remaining diodes are connected in series and operated such that the current flowing through the first diode also flows through the remaining ones.

9. (Twice Amended) A method for stabilizing a plurality of similar light emitting diodes or laser diodes, wherein a first diode is stabilized using the method set forth in claim 3, and wherein the remaining diodes are operated by one or more voltage sources whose source voltage follows the forward voltage of the first diode.

10. (Twice Amended) A method for stabilizing a plurality of similar light emitting diodes or laser diodes, wherein a first diode is stabilized using the method set forth in claim 3, a first portion of the remaining diodes is connected in series and operated such that current flowing through said first diode also flows through the first

CS portion of the remaining diodes, a second portion of one or more of the remaining diodes is operated by connecting each to a voltage source whose voltage follows the forward voltage of the first diode and wherein one or more additional portions of the remaining diodes are connected in series and operated such that the currents flowing through the diodes of the second portion flow also through the diodes of the additional portions.

Ch 11. (Thrice Amended) A method for determining the forward voltage of a diode, selected from the group consisting of a light emitting diode and a laser diode, as a function of the diode current at a constant light power, comprising the steps of: varying the temperature of the diode using a heating or cooling device; determining the emitted light power by means of a photodetector; and maintaining the emitted light power at a constant level by means of a control device and measuring the values of the forward voltage and the forward current of the diode at various temperatures.

CA 12. (Twice Amended) A method for determining the parameters of a linear correlation between the forward current and the